Environmental Health Sciences

School of Public Health

MS degree only

2016-2017 Student Guidebook

Welcome to the University of Minnesota School of Public Health!

All students are responsible for knowing the rules and policies that govern their academic program. To this end, we are providing you with this guidebook which covers your specific academic program requirements. Please refer to it often.

Many Graduate School processes are in transition. Please stay in touch with your Program Coordinator as some paper processes will convert to electronic processes.

In addition, you are responsible for knowing University of Minnesota and School of Public Health policies and procedures that pertain to all students. Links to these policies and procedures can be found by clicking on the "Current Students" link at http://www.sph.umn.edu/current/resources/.

EnHS Student Mailboxes – 1215-1 Mayo Building

Student mailboxes are located in the interior hallway of Room 1215 in 1215-1 Mayo. Check your mailbox regularly for communication from faculty and accounting (important letters you may need to sign and return ASAP).

Division of Environmental Health Sciences
Administrative Contacts:

Division Head – Bruce Alexander, PhD	612-625-7934	(balex@umn.edu)
Director of Graduate Studies – Elizabeth Wattenberg, PhD	612 626.0184	(watte004@umn.edu)
*Major Chair (MPH) – Matt Simcik, PhD	612.626.6269	(msimcik@umn.ed)
Major Program Coordinator – Khosi Nkosi	612 625.0622	(enhsss@umn.edu or nkosi001@umn.edu)
*Also known as Program Director		

Our Mission
The primary mission of the Division of Environmental Health Sciences is to provide excellence in the education of environmental and occupational health professionals, in the conduct of research, and in the service to the people of the State of Minnesota and the world. These aims are achieved through:

Education: Masters' and doctoral education programs
Research: Research and scholarly activities
Service: Professional practice and service
Outreach: Continuing education, and outreach programs that include collaborative efforts with faculty in colleges throughout the university, and through collaboration with health care organizations, industry and government agencies.

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1. Division of Environmental Health Services (EnHS)

1.1 Division Resources

Websites

EnHS websites for:

- EnHS Division News and Events
- Student Support Services Useful links
- EnHS Calendars
- Environmental Health Blog
- EnHS Faculty

Other Resources

- Resources

Websites relevant to MS only

- MS Program Curriculum

Other important related websites for all:

- All SPH Faculty Directory
- Career Services
- Resources
- SPH Course syllabi
- Questions about tuition and fees
- Immunization and immunization Holds

Have news to share? Website questions or submissions should be sent to Joy Archibald at archi009@umn.edu

EnHS Student Mailboxes – 1215-1 Mayo Building
Student mailboxes are located in the interior hallway in 1215-1 Mayo. Students are expected to check mailboxes regularly for messages from faculty and staff. Faculty mailboxes are located on the left in room outside of 1150 Mayo.

EnHS Faculty Directory

Name	Title	E-Mail	Phone	Office
Bruce Alexander, PhD Env. and Occupational Epidemiology	Professor, Division Head, Director of UMASH	balex@umn.edu	625-7934	1260 Mayo
Susan Arnold, PhD, CIH FAIHA Industrial Hygiene and Exposure Science and Sustainability Inst	Assistant Professor	Arnol353@umn.edu	624-6222	1239 Mayo
Silvia Balbo, PhD Environmental Toxicology	Assistant Professor	balbo006@umn.edu	624-4240	2-145 CCRB
Timothy Church, PhD, MS Env. and Occupational Epidemiology	Professor	churc001@umn.edu	626-1494	1162 Mayo
Matteo Convertino, PhD Complex Systems Modeling –Trans-disciplinary	Assistant Professor Lab: HumNat	matteoc@umn.edu	624-0132	1132 Mayo
Susan Gerberich, PhD, MS Env. and Occupational Epidemiology	Professor, Director of MCOHS & ERC	gerbe001@umn.edu	625-5934	1156 Mayo
Craig Hedberg, PhD, MS Env. & Infectious Diseases/Food Safety	Professor Midwest Center for Food Safety	hedbe005@umn.edu	626-4757	1214 Mayo
Huyn Kim, ScD Occupational Injury Epidemiology, Injury Prevention	Assistant Professor	kimx4804@umn.edu	626-0435	1116 Mayo
Lee, Petrona, PhD, MS	Lecturer	Lee3143@umn.edu	625-2899	1158 Mayo
George Maldonado, PhD, MS Env. and Occupational Epidemiology	Associate Professor	gmphd@umn.edu	626-2104	1114 Mayo
Jeff Mandel, MD, MPH Occupational Medicine	Associate Professor	mand0125@umn.edu	626-9308	1240 Mayo
Patricia McGovern, PhD, MPH, RN Env. Health Policy/ Occupational & Env. Health Nursing/ Occupational Health Services Research and Policy	Bond Professor of Environmental and Occupational Health Policy	pmcg@umn.edu	625-7429	1112 Mayo
Jonathan Oliver, PhD Environmental Infections Diseases	Assistant Professor	joliver@umn.edu		1234 Mayo
Lisa Peterson, PhD Environmental Toxicology	Professor	peter431@umn.edu	626-0164	760D CCRB
Ramirez, Marizen PhD Occ Injury Epi and Prevention	Associate Professor	mramirez@umn.edu	624-3143	1210 Mayo
Pete Raynor, PhD, MS Industrial Hygiene	Associate Professor	praynor@umn.edu	625-7135	1242 Mayo
Matt Simcik, PhD, MS Environmental Chemistry	Associate Professor MPH Major Chair	simci001@umn.edu	626-6269	1108 Mayo
Irina Stepanov, PhD Environmental Toxicology	Assistant Professor	stepa011@umn.edu	624-4998	760 CCRB
William Toscano, PhD Environmental Toxicology	Professor	tosca001@umn.edu	624-2967	1260-6 Mayo
Elizabeth Wattenberg, PhD Environmental Toxicology	Associate Professor, DGS for MS/PHD	watte004@umn.edu	626-0184	1110 Mayo

Staff

Name	Title	E-mail	Phone	Office
Karen Brademeyer	Office Supervisor	kbrad@umn.edu	626-0900	1260 Mayo
Bridget Brennan	Accountant	brenn006@umn.edu	624-6993	1245 Mayo
Debb Grove	Division Administrator	grove020@umn.ed	626-4803	1260-5 Mayo
Joy Archibald	Web Coordinator	archi009@umn.edu	626-1440	1260-2 Mayo
Khosi Nkosi	Major Program Coordinator	enhsss@umn.edu/nkosi001@umn.edu	625-0622	1215-2 Mayo
Frank Strahan	Info Tech Specialist	fxs@cccs.umn.edu	624-3710	1151 Mayo
Ellen Jerome	Student Worker	jerom058@umn.edu	626-0900	1260 Mayo

EnHS Division Honors and Awards

Each spring the students vote for recipients of two awards. The Herbert M. Bosch Award honors the student who "best exemplifies the traits of kindness and regard for the welfare of humanity". The Faculty Excellence Award recognizes a professor of Environmental Health for excellence of graduate instruction and progress in the professional development of the graduate students in the past academic year.

Herbert M. Bosch Award

This award is presented to the student who best represents the traits of scholarship, honesty, integrity of character, humaneness and concern for community, to name a few. The class of 1963 felt that the inscription on the plaque, "...who best exemplifies the traits of kindness and regard for the welfare of humanity..." is the most important single guide to be followed by the class in selecting one of their fellow students for this award. The Environmental Health class of 1963 created the Herbert M. Bosch Award as a living memorial to the man who had done much to further the cause of humanity.

To be eligible for consideration for this award, each candidate must be a full-time student in the Environmental Health program (minimum six credits all MS, PhD and MPH students). The class of 1963 established that any subsequent class may modify these criteria after discussion and consultation with the program director and a two-thirds majority vote by the class. It was hoped that any modification would strengthen the integrity of the award. The class of 1964 established the following procedures for nominating a candidate:

1. The nominating ballot will list those persons who are Environmental Health students this will also be the list of the eligible voters; At least 50% of the eligible voters need to vote for the ballot to continue.

2. Each eligible voter may select up to two names for the nomination;
3. The three names that occur most frequently will constitute the final nominating ballot;
4. The eligible voters will then vote for one candidate among the three nominated.

Faculty Excellence Award
This award is presented by the graduating class to a professor of Environmental Health for excellence of graduate instruction and progress in the professional development of the graduate students in the past academic year. It was initiated by the Environmental Health Class of 1966. The selection of one of the candidates for this award in a previous year shall not prejudice the selection either for or against the candidate. Each year's selection shall be on the merit of the candidate in the previous twelve months and shall be independent of selections in previous years. It shall be the duty of the class officers and of the faculty to inform the graduate students of the terms of this award early in fall semester and at least one more time before the date of balloting.

All students registered for a graduate program with a major in the Division of Environmental Health Sciences are eligible to vote. It shall be the duty of the class officers to encourage all those eligible to vote to participate in this selection. The past two votes were conducted successfully via survey monkey.

Delta Omega - Honorary Society in Public Health
Delta Omega is the national honorary society for graduate studies in public health. (It is equivalent to Phi Beta Kappa for undergraduate studies in letters or Alpha Omega Alpha in medicine.) The society was founded in 1924, when only a few graduate schools of public health existed in the United States, and now has chapters at the majority of 25 or more such schools providing advanced public health degrees in 1990.

The Constitution and By-Laws were adopted in 1927, and amended occasionally since then. Policies are made by the National Council, composed of elected officers and representatives of each chapter, meeting annually. The annual meeting includes a scientific, as well as a business, program. It is usually held in conjunction with the Annual Meeting of the American Public Health Association.

The principle Delta Omega activities are conducted by each chapter. The chapter elects new members each year from three groups: (1) students who are candidates for a graduate degree in public health, (2) faculty members at the school of public health, and (3) alumni actively engaged in public health work. Election from all three groups is based on outstanding performance - scholarship in students, teaching and research in faculty members, and community service in alumni.

Election to membership in Delta Omega is intended not only to recognize merit, but also to encourage further excellence in and devotion to public health work.

More on EnHS Awards can be found here: http://enhs.umn.edu/current/award_descriptions.htm

1.2 Overview of EnHS Degree Programs

Degree Options: We offer MPH, MS, and PhD degrees and several areas of emphasis or concentrations.
See Degree options and curriculum listings at the following websites.
MPH: http://www.sph.umn.edu/academics/programs/mph/enhs/
MS: http://www.sph.umn.edu/academics/programs/ms/enhs/
PhD: http://www.sph.umn.edu/academics/programs/phd/enhs/

Students may focus in one of the following areas:

- General (MPH, MS)
- Environmental Chemistry (MS, PhD)
- Environmental and Occupational Epidemiology (MPH, MS, PhD)
- Environmental Infectious Diseases (MPH, MS, PhD)
- Environmental Toxicology (PhD)
- Exposure Sciences (MS)
- Global Environmental Health (MPH, MS)
- Industrial Hygiene (MPH, MS, PhD)
- Injury and Violence Prevention and Control (PhD)
- Occupational and Environmental Health Nursing ((MPH, PhD))
- Occupational and Environmental Medicine (MPH)
- Occupational Health Services Research and Policy (PhD)
- Regulatory Toxicology and Risk Assessment (MPH, MS)

Doctoral Training Grants housed in the Midwest Center for Occupational Health and Safety (MCOH)

EnHS offers two doctoral training programs; each of which supports and enhances the Ph.D. training of students in multidisciplinary fields of study and research:
Occupational Health Services Research and Policy (Read more: OHSRP)
Occupational Injury Prevention Research Training (Read more: OIPRT)

MCOHS is an **Education and Research Center**, one of 18 nationwide, was designed in response to a mandate of the National Institute for Occupational Safety and Health (NIOSH) -- to provide an adequate supply of qualified personnel to carry out the purposes of the Occupational Health and Safety Act and reduce the national burden of work-related injury and illness. The MCOHS, recognized regionally, nationally and internationally for its impact, has a service area that includes Minnesota, Wisconsin, and North and South Dakota.

MCOHS provides graduate academic and research training programs, continuing education and outreach activities, including research-to-practice, and serves as a regional resource for industry, labor, federal, state, and local government agencies, agriculture, and other interested parties.

An innovative administrative structure supports enhanced efforts in interdisciplinary research, education, and outreach, and strengthens diversity recruitment for the next generation of professionals.

Dual Degrees

The Division also offers the following joint degrees in collaboration with other university schools:

- JDP/MPH with the Law School
- MD with the Medical School

1.3 Academic Advising, Roles and Expectations

The School of Public Health provides advising that promotes collaboration among students, faculty and staff to enhance students' academic and professional development in the field of public health. The School's goal is to provide educational and experiential excellence that prepares students for successful careers improving the health of populations. We do this by providing you with wide network of resources for you to take advantage of. We are part of your network.

The School of Public Health is committed to creating and sustaining high quality advising in the following four areas:

1. **Administrative Advising**: advising on course planning and scheduling, policies, procedures and benchmarks of the degree program/major, SPH, and the University. Your program coordinator is your first point of contact for these questions.
2. **Academic Advising**: general guidance on topics related to program/major including, but not limited to, program focus (may include identifying appropriate course work options), field experience and master's project selection and or career planning. Students find their faculty advisors, coordinators and career services staff all helpful in answering parts of these questions.
3. **Field Experience/Internship/Practicum Advising**: specific and targeted advising for field experience/internship/practicum development, placement and completion. Your faculty advisor can assist you as you select the type of field experience that would best match your goals. Career Services staff can help you to learn how to network with other students and alums to explore possible field experiences sites.
4. **Culminating Experience /Master's Projects/Plan B/Dissertation Advising**: specific and targeted direction on a master's project or a PhD dissertation including, but not limited to development, completion and in some cases publication. Your faculty advisor will assist you in developing a direction for your project or dissertation.

GRADUATE ADVISING EXPECTATIONS FOR STUDENTS

All SPH students are expected to:

Regularly read and respond to University email (ideally once per day); email is the official mode of communication at the University of Minnesota.

- Review program objectives and educational documents *at least once per semester*, (i.e. Student Guidebook, etc.), or when directed by program coordinator or program director/DGS; students are responsible for knowing the requirements of the degree program.
- Actively contribute to a welcoming and supportive SPH and EnHS climate.
- **Initiate** meetings with advisor(s) at least once per semester; regularly communicate with faculty advisor(s) and/or program coordinator about program progress.
- Respond to inquiries from faculty or staff in a timely manner (ideally within 1 – 3 business days).
- Behave in a professional and courteous manner; fulfill educational and advising commitments, such as appointments, project deadlines, etc.

Similar guidelines are posted by the University of Minnesota Office of Graduate Education for Academic and Professional Programs here: http://www.gradvising.umn.edu/

ACADEMIC ADVISING FOR FACULTY

Excerpt from: University of Minnesota Office of Graduate Education for Academic and Professional Programs here:

The work of the graduate faculty in preparing the next generation of scholars and professionals doesn't stop with classroom teaching. Advising, tutoring, supporting and supervising are all part of the faculty role as stewards of the profession and mentors to graduate students. Mentoring future professionals and professors, therefore, requires a commitment that goes well beyond the capacity of a single individual advisor. Best practices in graduate education indicate that graduate and professional students' multiple professional and personal development needs are most effectively met by a network of people.
These resources, developed by the Work Group on Advising & Mentoring, are provided to help you maximize your relationships with your advisees, deal constructively with conflicts that may arise, and address ways to communicate more effectively to minimize misunderstandings.

Diversity of Student Body

The School of Public Health embraces the University of Minnesota's position that promoting and supporting diversity among the student body is central to the academic mission of the University. We define diversity to encompass many characteristics including but not limited to: economic disadvantage, special talents, evidence of leadership qualities, race or ethnicity, sexual orientation, a strong work record, and disability. A diverse student body enriches graduate education by providing a multiplicity of views and perspectives that enhance research, teaching, and the development of new knowledge. A diverse mix of students promotes respect for, and opportunities to learn from, others with the broad range of backgrounds and experiences that constitute modern society. Higher education trains the next generation of leaders of academia and society in general, and such opportunities for leadership should be accessible to all members of society.
Read more.

MPH/MS/PhD Academic Advising

Expectations:
1. All faculty members will serve as academic advisors and will accept advisees from all majors in which they participate.
2. Meet with advisees at least once per semester.
3. Respond in a timely manner to requests from advisees for meetings or responses by telephone or e-mail.
4. Provide general guidance to students about coursework, fieldwork, project selection, and career planning.
5. Make students feel welcome to the Division.
6. Act as a contact person for the student and help direct the student to the appropriate resources in the Division given particular issues or problems the student may have.
7. Act as a resource for the student when bureaucratic or political problems in the University, School or Division may be interfering with the student's effective progress toward his or her degree.

GENERAL GUIDELINES:

Given that most faculty members do not keep track of changes in University and College procedural rules, below are areas for which academic advisors and administrative advisors work collaboratively:

Administrative Advisors:

College and University Rules and Regulations
Guidance to course planning and course changes
Petition Process for Transferring courses or requests for exception
Student Progress, Milestones, Forms and Degree Clearance
And more….

Academic Advisors:

Concentration requirements, electives, field experience and culminating experience
Approving electives
Career planning in conjunction with the careers services staff and office
Guiding coursework selections to meet career goals
Special approvals- transfers, etc. Discuss appropriateness of choice considering student's emphasis in program.

Guidelines for Changing Advisors

Master's Students

At the master's level, students may change academic advisors when necessary at the early stages of their program. Students should consult with their major coordinator and or consult with their major chair or DGS.

1.4 EnHS Program Curriculum

Most MPH/MS students require two years to complete their degree program. Students should consult with their advisor regarding the time required for their subspecialty; PhD students should also consult with their advisor to determine their curriculum and course of study.

General Public Health Core Coursework [required of MPH and MS]
Students are required to register for these courses A/F unless otherwise noted.

Course	Title	Offered	Credits
PubH 7194	Culminating Experience/Master's Project *[S-N grade basis only]*	Any term	3-5
PubH 6103	Exposure to Environmental Hazards	Fall	2
PubH 6104	Environmental Health Effects: Introduction to Toxicology	Fall	2
PubH 6105	Environmental and Occupational Health Policy	Spring	2
One of the following courses in Epidemiology			
PubH 6320 **or** PubH 6341	Fundamentals of Epidemiology Epidemiologic Methods I	Any term Fall	3 3
One of the following courses in Biostatistics			
PubH 6414 **or** PubH 6450 **or** PubH 6451	Biostatistical Literacy (in class and online) Biostatistics I Biostatistics II	Any term Fall/Spring Spring	3 4 4
One of the following courses in Ethics ②			
PubH 6741 **or** PubH 6742	Ethics in Public Health: Professional Practice & Policy Ethics in Public Health: Research and Policy	Any term Any term	1 1

PubH 6741 is recommended for MPH students and 6742 for MS/PhD students (meets the Graduate School requirement for Ethics training for Research Assistants)

General Public Health Core Coursework [required of MPH students only]

Note: Students are required to register for these courses on an A/F grade basis unless otherwise noted. More on Public Health Core Online and In person: http://sph.umn.edu/programs/ehsmph/

Course	Title	Offered	Credits
PubH 6020	Fundamentals of Social and Behavioral Science	Any term	3
PubH 7196	Field Experience [S-N grade basis only]	Any term	3-5
PubH 6751	Principles of Management in Health Services Organizations	Fall/Spring	2

Sample Two-Year MS Registration (30-36 Cr)

Remember: you are expected to meet with your advisor <u>at least once</u> a semester

Recommended - Field Experience Timeline *begins with research the first semester*

Year 1: Fall Semester (x)		
PubH Core	6320/6341; 6742, 6450/6414	x.0
PubH 6103	Exposure to Environmental Hazards (required)	2.0
PubH 6104	Environmental Health Effects: Introduction to Toxicology (required)	2.0
	other course/ elective courses (e.g. 6100,6106. 6162)	x
	Total	

<u>To Do:</u> *Meet with your advisor at least once each semester. Spring Registration begins early November (complete immunizations well ahead to avoid a hold on your record)*

Year 1: Spring Semester (12.0 cr)		
PubH 6320	Fundamentals of Epidemiology	3.0
PubH 6105	Environmental and Occupational Health Policy	2.0
PubH 6751	Principles of Management in Health Services Organizations	2.0
	Electives	5.0
	Total	*12.0*

In March submit your Self-Assessment Report to your advisor and major coordinator

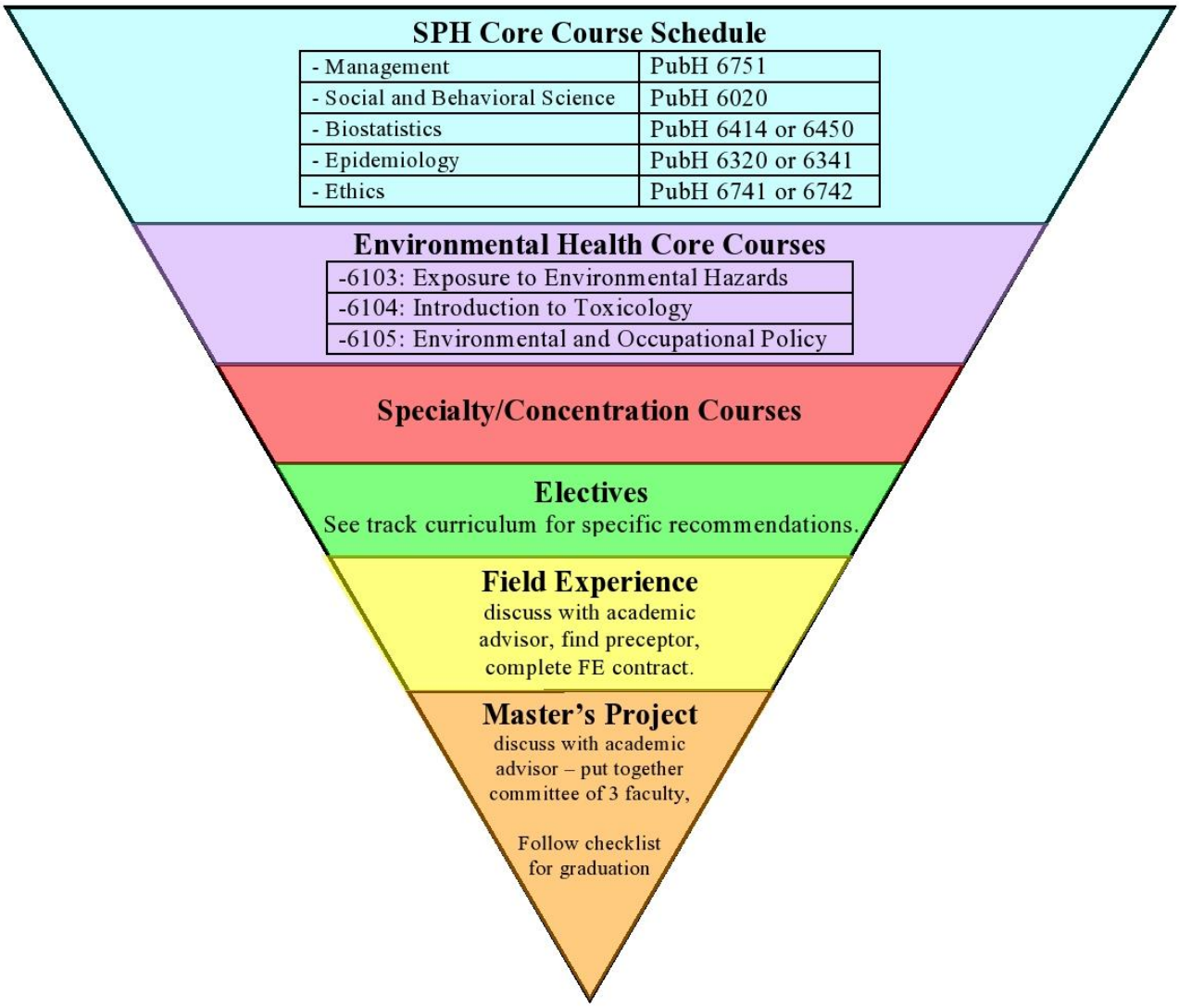
Year 1: May/Summer Semester (3.0 cr)		
PubH 7196	Field Experience in Environmental Health	3.0
PubH 7194	Culminating Experience (submit proposal if eligible)	*3.0*

Year 2: Fall Semester (9.0 cr)		
PubH 6414/6450	Biostatistics	3.0
PubH 6181	Surveillance of Foodborne Diseases and Food Safety Hazards	2.0
PubH 6741	Ethics in Public Health Professional Practice and Policy	2.0
	Electives	2.0
	Total	*9.0*

Year 2: Spring Semester (8.0 Cr)		
PubH 6112	Env Hlth Risk Analysis: Apps to Human Exposure to Chemicals	3.0
PubH 7194	Culminating Experience/Master's Project	3.0
	Electives as needed	2.0
	Total	*8.0*

Year 2: May/Summer Semester (0.0 cr)		
	Total	*0.0*
	Total	**42.0**

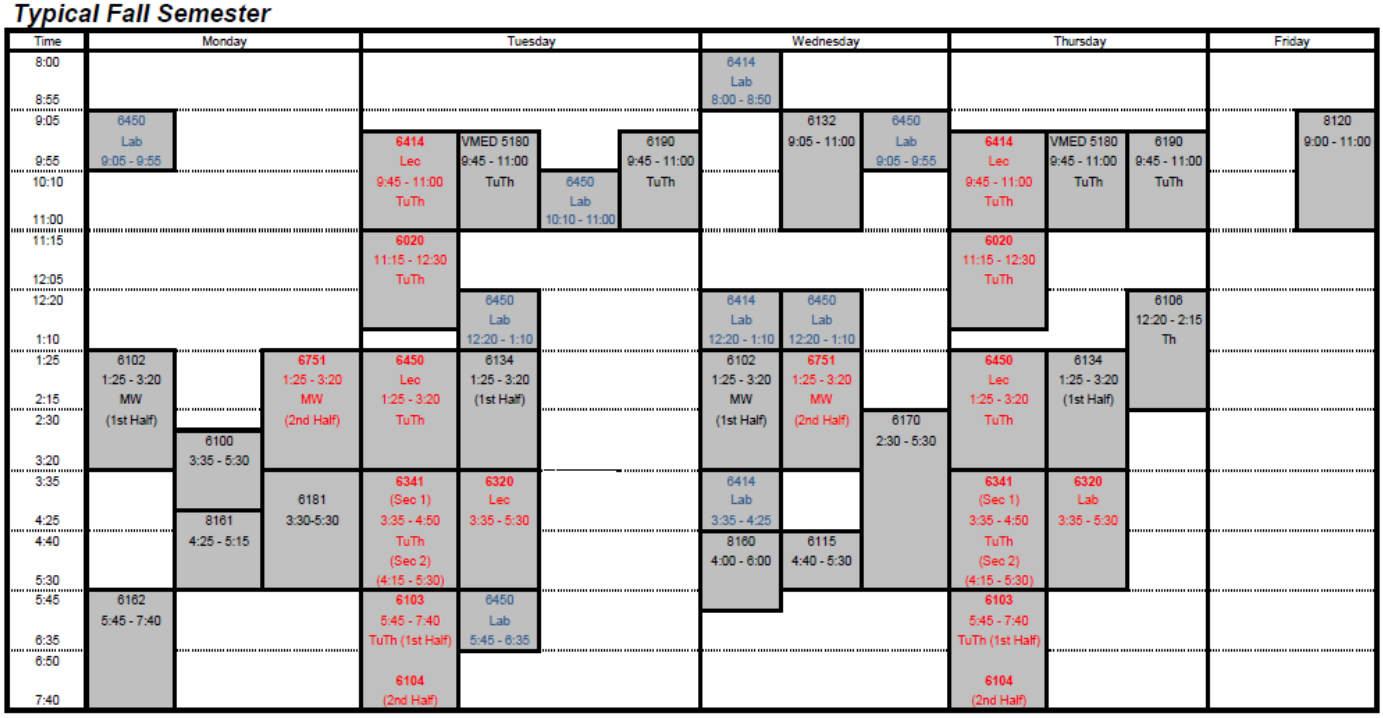
MS and MPH Degree Structure: Building Blocks for Your Degree



NOTE: All specialty tracks are now referred to as Concentrations except for the Industrial Hygiene.

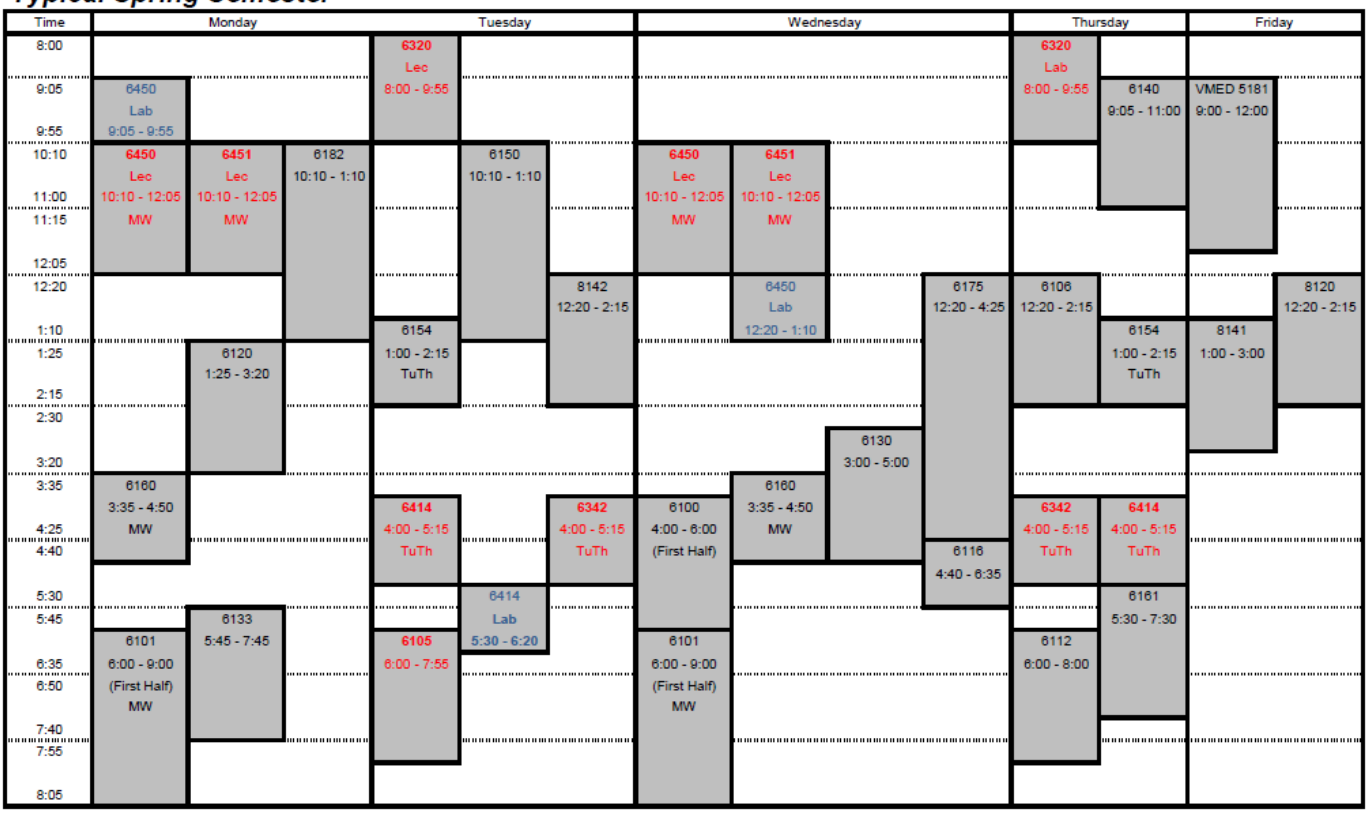
1.5 SPH EnHS Division Core Course Schedule

Typical Fall Semester



Note: School of Public Health and Environmental Health Core requirements in red bold.
Note: Single section 6414 and 6450 lab options in blue.

Typical Spring Semester



Note: School of Public Health and Environmental Health Core requirements in red bold.
Note: Single section 6414 and 6450 lab options in blue.

1.6 EnHS Division Course List

Course Syllabi can be found here: http://www.sph.umn.edu/academics/syllabi/

3102 Issues in Environmental and Occupational Health
(3 cr) **Lee**
Scope of the field of environmental health. Concepts upon which environmental interventions are based. Consulting literature to identify appropriate interventions for community environmental health problems.
Fall: online

3104 Intro to Toxicology
(2cr) Wattenberg
Toxicology is a multidisciplinary experimental science that combines chemistry, biology, and physiology to determine whether substances we are exposed to in the environment are likely to harm our health. Students will learn how toxicology is used to understand how humans respond to chemicals in the environment. In addition, students will learn how toxicology is applied to protect human health through safety evaluation. **Spring offering; in class only**.

3106/6106 Making Sense of Health Studies
(2cr) **Maldonado**
How to critically evaluate health news (and the health research reports on which they are based) to make good, well informed decisions about your health and well-being. Pairs with 6106 Making Sense of Health Studies discussion. Fulfills public health minor requirements for CLA.
Fall and Spring: 12:20pm -2:15pm Th

3107 Global Public Health and the Environment
(2cr) **Alexander**
Environmental determinants of health/well-being of populations. Role of environment in public health, resulting population burden of disease. Variation of environmental public health determinants across globe. Interconnectedness of activities/actions of people in different countries. Fulfills public health minor requirements for CLA
Fall only: 3:55pm-5:30pm Tu

For 3120 see 6120; 3121 see 6121; 3123 see 6123

6100 Topics: Environmental Health
(.5-4 cr; prereq EH major or #)
New course offerings or topics of interest in environmental health.

6101 Environmental Health
(2 cr) **Toscano**
Principles of environmental health relating to macro- and micro-environments and to products consumed or used by people.
Fall and Spring: 6:00pm-9:00pm MW (first seven weeks)

6102 Issues in Environmental and Occupational Health
(2 cr; prereq grad student or EH major) **Lee, Simcik**
The field, the current issues and the principles and methods of environmental and occupational health practice. Independent field study to observe, view, and analyze environmental/occupational health programs, contacts on a discussion group on EnHS web page and completion of a take home exam are required.
Fall and Spring: 1:25pm-3:20pm MW (first half of semester) - Fall, Spring, Summer online options.

6103 Exposure to Environmental Hazards
(2 cr) **Raynor**
Nature, effects, and regulation of exposure to biological, physical, and chemical hazards in the environment, placing these in the context of the inter- and multi-disciplinary scientific field of environmental health as an essential component of the wider field of public health. The course will comprise lectures, presentation of example case studies, and group discussions.
Fall: 5:45pm-7:40pm TuTh (first half of semester)

6104 Environmental Health Effects: Introduction to Toxicology
(2cr) **Wattenberg**
To identify the mechanisms and effects of environmental agents on human health.
Fall: 5:45pm-7:40pm TuTh *(last seven weeks of fall semester)*

6105 Environmental and Occupational Health Policy
(2 cr; prereq EH major or #) **McGovern**
This is an introductory course designed to provide graduate students with a survey of environmental and occupational health policy, acquaint them with the public policy process in the United States and introduce conceptual frameworks for analyzing public policy alternatives. Students will be encouraged to apply course content to their professional career in public health and to contribute to policy that advances the health of the public. Students will develop an understanding of environmental and occupational health policies, laws, key concepts and principles, proposals and approaches for regulatory reform, approaches to policy analysis, and overall phases and issues in the policy making process. **Spring: 6:00pm-7:55pm Tu**

6106 Making Sense of Health Studies
(2cr) **Maldonado**
How to critically evaluate health news (and the health research reports on which they are based) to make good, well informed decisions about your health and well-being. Pairs with 3106 Making Sense of Health Studies lecture. Fulfills public health minor requirements for CLA.
Fall, Spring: 12:20pm -2:15pm Th

6112 Environmental Health Risk Assessment: Application to Human Health Risks from Exposure to Chemicals
(2 cr; prereq Intro courses in toxicology/exposure analysis e.g., PubH 6104 Environmental Health Effects: Introduction to Toxicology, PubH 6103 Exposure to Environmental Hazards or equivalent) **Wattenberg**
Introduction to risk in the context of regulatory decision-making.
Spring: 6:00pm-8:00pm Th

6115 Worker Protection Law
(1 cr) **Austin**

The course will focus on the role of government in protecting rights of citizens. Labor movement history will serve as a starting point for a discussion of modern systems for protecting workers from unsafe work places and compensating them for Injuries that do occur. Law will be reviewed that protects individuals against class-based discrimination and creates a "right" to work.
Fall: 4:40pm-6:35pm W

6116 Environmental Law
(1 cr) **Austin**
Several difficult legal questions arise when pollution protection law conflicts with policy encouraging use of natural resources. Conflict also arises when the government restricts the use of property without compensating its owner. Course also considers the increasing authority of government agencies to audit business to assure compliance.
Spring: 4:40pm-6:35pm W

6120 Injury Prevention in the Workplace, Community, and Home
(2 cr) **Gerberich**
Injury epidemiology: analysis of major injury problems affecting the public in the workplace, community, and home using the epidemiologic model and conceptual framework; emphasis on strategies/program development for prevention and control.
Spring: 1:25pm-3:20pm M

6121 Topics: Injury Prevention in the Workplace, Community, and Home
(1-2 cr; prereq 6120, 6330 or 6341) **Gerberich**
Selected projects relevant to injury problems.
Spring TBA

6123 Violence Prevention and Control: Theory, Research, and Application
(2 cr) **Ramirez**
Analyses and critique of major theories and epidemiological research pertinent to violence, including characteristics of violence and relevant risk factors, reporting and treatment protocols, and current/potential intervention efforts and prevention initiatives; emphasis on interdisciplinary contributions to violence prevention and control.
Spring: 1:25pm-3:20pm M

6130 Occupational Medicine: Principles and Practice
(2 cr; prereq Grad student or EH major) **Mandel**
Pathogenesis of diseases caused by occupational hazards, evaluating work-related illnesses, overall regulatory framework governing occupational health and safety.
Spring: 5:00pm-7:00pm W

6131 Working in Global Health
(2 cr) TBA
Major factors influencing health worldwide, and the interdependence of the developed and developing world in addressing health problems from a global perspective.
Spring: 6:00pm-8:30pm W

6132 Air, Water, Health
(2 cr) **Simcik**

In this course we will explore the issues related to providing adequate levels of clean air and water. Specific issues include local water quantity and quality and local air quality in both the developed and developing world, as well as global air and water quality, and policies meant to protect these resources.
Fall: 9:05am-11:00am W

6133 Global Health Seminar
(1 cr)
This seminar course will explore various aspects of global health from a public health perspective.
Spring: 5:45pm-7:45pm M

6134 Sustainable Development and Global Public Health
(2cr) No Prereqs; **Toscano**
This course will focus on the effect of globalization on social and sustainable development on global health from a public health perspective. Topics will include the interplay between global stressors such as population, war, economics, urbanization, environment, water and sanitation, communicable and non-communicable conditions and their effects on human health globally. This course is intended for students who do not have extensive public health training.
Fall: 1:25pm – 3:20pm TuTh (first half of the semester)

6140 Occupational and Environmental Epidemiology
(2 cr; prereq basic course in epidemiology and biostatistics) **Kim**
Principles and concepts in identifying health effects in the workplace; strategies for identifying excess risk, evaluating strengths and weaknesses of research techniques, assessing bias and confounding.
Spring: 9:05am-11:00am Th

6150 Interdisciplinary Evaluation of Occupational Health and Safety Field Problems
(3 cr; prereq PubH 6170 or instr consent) **Arnold**
Guided evaluation of potential health and safety problems at the worksite, recommendations and design criteria for correction; and evaluation of occupational health and safety programs.
Spring: 10:10am-1:10pm Tu

PubH 6151 OEHN Nursing Seminar
(1cr) **McGovern**
Seminar focuses on professional role and skill development, competency assessment, and development and implementation of field experiences and plan B research papers. Depending on the student cohort each semester, the seminar will be a group learning activity or individualized mentoring based on the instructor's assessments of students' learning needs.
Fall, Spring TBA

PubH 6154 Climate Change and Global Health
(3 cr) **Simcik**
This course explores the interconnected relationships between global climate change and human health. During this course students will develop computer models to predict climate change from natural and anthropogenic forces, predict human health outcomes as a result of a changing climate, and combine them to investigate different policy scenarios.
Spring: 1:00pm-2:15pm TuTh

6160 Systems Toxicology (formerly "Metabolomics")
(3 cr; prereq Biochem, mol biol, org chem or #) **Peterson**

Pharmacokinetics/toxicokinetics and xenobiotic metabolism. Mechanisms by which phase I and phase II enzymes bioactivate and detoxify xenobiotics. Implications of these biochemical reactions for human health.
Spring: 3:35pm-4:50pm MW

6161 Regulatory Toxicology
(2 cr; prereq some background in [toxicology or pharmacology or related field] is recommended) **Balbo**
In-depth introduction to laws (and associated regulations) of U.S. federal regulatory agencies, such as CPSC, EPA, FDA, OSHA, and DOT, that both require and use toxicological data/information in their mission of protecting human and environmental health.
Spring Th 5:30pm -7:30pm

PubH 6162 Biomarkers
(2 cr) **Stepanov**
Biomarkers are invaluable tools in identifying and preventing human disease. Due to significant concerns over the risk of human exposure to airborne pollutants, persistent organic pollutants, heavy metals, and other environmental agents, the potential of molecular markers is especially high in identifying susceptible individuals and preventing environmentally-induced disease. This course will introduce current status of molecular biomarker research, including biomarkers of chemical exposures, genetic toxicity markers, genomics-based biomarkers of susceptibility, and organ and systems biomarkers. The progression of biomarker development and application from the laboratory environment to the clinical or population-based settings and to the development of public health policies and interventions will be discussed. The course will include a collaborative project.
Fall: 5:45pm-7:40pm M

6170 Introduction to Occupational Health and Safety
(3 cr; prereq EH major or #) **McGovern**
Introduction to major concepts and issues in occupational health and safety. Apply public health principles and decision-making process in relation to prevention of injury and disease, health promotion of adults and protection of worker populations from environmental hazards.
Fall: 2:30pm-5:30pm W

6173 Exposure to Physical Agents
(2 cr; prereq grad student or EH major, IH specialty or equiv preparation) **Raynor**
Nature, health effects, monitoring and control of physical agents in working and living environments, ionizing/non-ionizing radiations (including lasers and ultraviolet, visible and infrared light), noise and vibration, and heat and cold stress; dose, response and engineering interventions.
Spring: 4:40pm-6:40pm M

6175 Environmental Measurements Laboratory
(2 cr; prereq PubH 6171 or #) **Simcik**
Broad treatment of occupational health field. Role of industrial hygienist. Emphasizes practical application of industrial hygiene concepts/methods. Lectures/demonstrations, lab exercises, project.
Spring: 12:20pm-4:25pm W

6181 Surveillance of Foodborne Diseases and Food Safety Hazards
(2 cr; prereq PubH 6320 or PubH 6341) **Hedberg**
Surveillance of food borne disease and food safety.

Fall: 3:30pm-5:30pm M

6182 Emerging Infectious Diseases: Current Issues, Policies, and Controversies
(3.0 cr; Prereq-AHC student, #; A-F spring, every year) **Osterholm**
Issues/controversies surrounding emerging infectious diseases. Framework for considering realistic/innovative policies. Bioterrorism, public health preparedness. Pandemic influenza preparedness, smallpox vaccination, antibiotic resistance.
Spring: 10:10am-1:10pm M

6183 Theory and Practice in Foodborne Disease Outbreak Detection, Investigation and Control (1 cr)
Hedberg

This course focuses on the practical basis for developing and implementing methods for foodborne disease outbreak detection, investigation and control; using recent outbreaks to highlight underlying principles. The course will review biological characteristics of major foodborne disease pathogens, clinical features of the illnesses they cause and epidemiologic presentations of foodborne outbreaks. The implications of these characteristics will be discussed in a problem solving, seminar format that examines theory and practice in the context of recent outbreaks. Strategies to promote timely decision-making will be emphasized. **Spring We 4:00-6:00pm**

6190 Environmental Chemistry
(3 cr; prereq gen chem, org chem or #) **Simcik**
Overview of chemistry of air, water and soil, pertinent environmental problems; human and ecological multi-media exposures to chemicals in the environment.
Fall: 9:45am-11:00am TuTh

6192 Measurement and Properties of Air Contaminant
(2 cr Prereq: Good grasp of [elementary physics, chemistry, mathematics including calculus)
This course explores the physical nature of gaseous and particulate air contaminants, their occurrence in workplaces, the factors governing generation and dispersal, the criteria, rationales and standards under which practical measurement in the workplace is conducted, the principles underlying industrial hygiene measurement techniques; processes of inhalation and deposition of aerosols and their ultimate fate, and scenarios linking exposure with aerosol-related ill-health
Fall: 12:20pm-2:15pm WF (first half of the semester)

6193 Advanced Topics in Exposure Sciences
(2 cr A-F only; prereq 6192 or instr consent)
Fall: 12:15pm-2:20pm WF (second half of the semester)

7193 Directed Study: Environmental Health
(1-4 cr; prereq grad student, EH major, #) EnHS Faculty
Directed study in a topic at discretion of faculty member. Usually students and faculty agree upon an area they feel could enhance the advanced masters' students' educational experience. *Independent Study*
Fall, Spring, Summer

7194 Master's Project: Environmental Health
(1-5 cr; prereq EH major or #) EnHS Faculty
Directed projects or examination in environmental and occupational health. *Independent Study*
Fall, Spring, May session, Summer

7196 Field Experience: Environmental Health
(1-5 cr; prereq EH major or #) EnHS Faculty
Directed practicum in environmental and occupational health. *Independent Study*
Fall, Spring, May session, Summer

7200 and 72XX Topics Courses Public Health Institute
May Session single day or three week intense courses. http://www.sph.umn.edu/ce/institute/

8100 Topics: Environmental and Occupational Health
(1-6 cr; prereq #) EnHS Faculty
New course offerings or topics of interest in environmental and occupational health.
Fall, Spring, May session, Summer; Time and place to be arranged

8120 Occupational Health and Safety Research Seminar
(1 cr; prereq EH major, OIPRTP specialty or equiv, PubH 6120, 6330 or 6341, 6450) **Gerberich, Alexander**
Facilitate student research efforts in occupational injury epidemiology and control through roundtable discussions and interdisciplinary involvement.
Fall: 9:00am-11:00am F; Spring: 12:20pm-2:30pm F

8141 Doctoral Seminar in Observational Inference
(2 cr) **Maldonado**
This seminar course in observational inference is designed for doctoral students in public health who are interested in practicing the fundamentals of epidemiologic inference, including methods for designing, analyzing, and interpreting epidemiologic studies. Class time will be spent critically discussing methods papers and applied papers and designing studies or parts of studies related to various areas of observational inference, including environmental and occupational health.
Fall, Spring: 1:00pm-3:00pm F (when offered)

8142 Epidemiology Uncertainty Analysis
(2 cr; prereq PubH 8140) **Maldonado**
The course will focus on the techniques of non-probabilistic and probabilistic (Monte Carlo) sensitivity analysis. This course builds on the concepts discussed in PubH 8140.
Spring: 12:20pm-2:15pm Tu F (when offered)

8160 Advanced Toxicology
(2 cr; prereq biochem, molecular biol, PubH 6160, #) **Peterson**
Cellular and molecular mechanisms by which xenobiotics cause toxicity; investigative approaches to current research problems in toxicology and carcinogenesis.
Fall: 4:00pm-6:00pm W

8161 Current Literature in Toxicology
(1 cr; S-N only, prereq - 6104) **Peterson**
The objective of this course is for students to critically read and discuss current toxicological literature. The topics covered in this course will change every semester with the goal to learn modern methods in toxicology and develop critical thinking skills.
Fall: 4:25pm-5:15pm M

8166 Experiences in Toxicology Research
(3.0 cr; Prereq-Environmental health PhD student in toxicology concentration; A-F only) **Peterson**

Students complete research projects in labs of toxicology program graduate faculty members. *Independent Study*
Spring TBA

8194 Directed Research: Environmental and Occupational Health
(1-6 cr; prereq grad student, EH major) EnHS Faculty
Opportunities to pursue research in environmental and occupational stresses on human health.
Independent Study
Fall, Spring, May session, Summer; Time and place to be arranged

VMED 5180 Ecology of Infectious /Diseases
(3cr; no credits if student for VMED 5180 if students has previously taken PubH 6180, PubH 6380 or CMB 5180.) **Singer**
This course focuses on the ways in which host, agent and environmental interactions influence the transmission of infectious agents. Specific topics related to these microbes include: transmission probability, herd immunity, evolution of virulence, host specificity, host-agent co-evolution, antimicrobial resistance, environmental dissemination, eradication and control, and use of analytical and molecular tools.
Fall: 9:45 – 11:00 TuTh

VMED 5181 Spatial Analysis in Infectious Disease Epidemiology
(3cr; preq intro to Epi, statistics) Singer
Knowledge of the spatial distribution of disease events (exposures and outcomes), and factors that determine where disease occurs, is a foundation of epidemiology and public health. Although disease maps have a long history of use in public health, it is only recently that methods for analysis of spatial disease data have become widely available. This course will provide students with a framework for analyzing spatial disease data, and illustrate the importance of such techniques in public health, geography and epidemiology. With this knowledge, students should be able to design, analyze and report on their own studies. The course will focus on human and animal health-related examples. The course will focus primarily on the spatial distribution of infectious diseases, but the principles discussed apply equally well to non-infectious diseases.
Spring: 9:00-12:00 F

2. Master of Science (MS) Degree Requirements

Program Plans
Three options for the Master's Degree are offered: Plan A **(rarely an option)** (uses registrations PubH 8777 10 cr required; NG –no grade), involves a thesis, Plan B and C (registration of PubH 7194- S/N grade only; 3-5 cr). In addition to the requirements listed below, it is the responsibility of each student to meet all degree requirements published in the "Students" section of the *Graduate School* online website at:

https://www.grad.umn.edu/current-students-graduate-student-services-progress/masters

New forms and new policies have been added and or implemented since the transitioning of the Graduate School to the new Graduate Education Office. The restructuring is still on-going. Its primary goal is enhancing the student experience. Changes include streamlining and digitizing many student administrative processes.

2.1 MS Requirements, Program Curriculum

MS Students are responsible for following closely administrative requirements listed by the Graduate School Policies & Governance here:

http://www.policy.umn.edu/Policies/Education/Education/MASTERSPERFORMANCE.html

MS students must be registered fall and spring semester each year to remain active in the program. Students must then continue to register every fall and spring term until they complete all degree requirements and graduate. Grad 999 is not automatically available for EnHS students to maintain their active status toward the MS degree. If you are within three months or less, you may request permission from the DGS. Exceptions are granted on a one-time basis only. Should a student not finish that term student must register for a regular credit to finish.

2.2 Course Transfers, Substitutions, Petition Process

Each program has its own specific credit requirements. See: EnHS Curriculum website: http://www.sph.umn.edu/academics/divisions/enhs/degrees/

Coursework and Credits
Students must complete a minimum of 30-36 credits, includes at least 3 credits for **Plan B project (PubH 7194)** and 10cr of PubH 8777 for Plan A.

Degree Program Plan: Complete one at least one semester before graduation

Satisfactory Progress: Meet with your advisor at least once a semester. Complete the **annual self-assessment report** and submit that to your advisor, major coordinator and DGS. Ask for annual review letter if you don't get one from your advisor. Maintain a 3.0 cumulative GPA, finish milestones in a timely manner.

Select electives in consultation with advisor; select examining committee (minimum of 3) with your advisor and project advisor.

2.3 Graduate Degree Plan (GDP), Annual Review Requirement

With approval of the advisor and Director of Graduate Studies, up to 40 percent of degree credits may be transferred from one program to another. Instructions for transferring coursework can be found here: https://policy.umn.edu/education/gradcreditdegree

Coursework from another institution being used to fulfill degree requirements should be included on the first page of your Graduate Degree Plan. An official transcript should be attached to the form unless a transcript showing that coursework is already on file at the Graduate School. If your Graduate Degree Plan is already approved, you must submit a petition along with an official transcript of the other institution. Transferred coursework will appear on your transcript.

2.4 Responsible Conduct of Research

The Graduate School requires all MS and PhD students to receive training in the responsible conduct of research. This includes exposure to the concepts and issues surrounding conflict of interest, authorship, code of conduct, use of animal and human subjects in research, data management, intellectual property

and copyright, history of ethics in research, plagiarism, fiscal responsibility, mentorship, environmental health and safety, and social responsibility. This training must occur once during the student's degree program. Taking PubH 6742 will satisfy the Graduate School requirement.

2.5 MS Culminating Experience/Masters Project Plans, Completion Steps, Check List and Forms

Refer to: http://www.grad.umn.edu/students/masters/index.html

At least one term prior to graduation, file a Degree Plan form with your major coordinator. This form must be approved and signed by your advisor and DGS. Once the Degree Plan is filed, changes to the program are made by petition. The Graduate *Degree Plan (GDP)* form can be downloaded from: http://policy.umn.edu/Forms/otr/otr198.pdf

MS Plan B and Plan C Master's Culminating Experience (with paper and presentation)

Plan B Project (research paper – not thesis)
Plan B projects or papers should be discussed with advisor early in the program.

Final Oral Examination
Students must pass a final oral examination and should discuss the oral examination with their advisor. The final exam report form is in the Masters Graduation Packet. The packet is available online now only at https://apps.grad.umn.edu/secure/gradpacket/

2.6 Time Frame, Satisfactory Progress Requirements, Annual Review Requirement

Students are expected to meet with the academic advisors at least once a semester. The spring semester meeting must include an annual performance review resulting in a letter to the student after student and advisor discuss past accomplishments and missed milestones. Student and advisor then craft a plan for the coming year with specific timelines. Use Self-Report form in Appendix A.

All requirements for the master's degree must be completed within **seven years** for those entering before January 2013. The seven-year period begins with the earliest courses listed on the official degree program, including any transfer of credits. For all entering after January 2013 the limit now is 5 calendar years.

Guidelines for timely progress towards the MS

See steps and forms and policies on Graduate School website:
http://www.grad.umn.edu/students/index.html

Minimum Requirements:

- Plan B: 30-36 minimum credits **includes** PubH 7194: Master's Project: Environmental Health.

Other Requirements:

- Consult with your advisor about specific required and elective courses.

- All requirements for the master's degree must be completed and the degree awarded within 5 years.
- Students are expected to submit the Degree Program form at least one term prior to graduation.

Suggested Timeline:

Year 1

- Plan for and register for courses in consultation with your advisor.
- Plan for and begin master's project; register for PubH 8777 master's thesis credits for Plan A or register for master's project- PubH 7194 for Plan B.

Year 2

- Complete course requirements and file Degree Plan (Step 1: http://policy.umn.edu/Forms/otr/otr198.pdf)
- Register for and complete courses and master's project/thesis credits. Select examining committee in consultation with advisor and form online form: http://www.grad.umn.edu/students/assignmasterscommittee/index.html
- Request graduation packet from Grad School.
- Complete master's project paper and present findings. Submit electronic copy to major coordinator.

2.7 Finishing, Examining Committees, Degree Clearance

NEW: Advisor and committee workflows and degree program form
For complete guidance and more current forms and policies visit:
http://www.grad.umn.edu/students/assignmasterscommittee/index.html

1. Consult with your academic advisor to identify the faculty members who will serve on your examining committee

Most graduate programs require that committee members have Graduate Education Responsibilities (GER) in the field they represent (major field or minor/outside of the major field).
Check here to verify faculty have GER in the major field and/or minor/outside of the major field.

2. Review the committee composition requirements for master's degree committees
3. Determine who will serve as: chair of the committee, outside/minor field examiner
4. Obtain the internet ID or employee ID number for each member of your committee
   - Internet IDs can be found in the University Directory
   - Employee IDs can be obtained from your graduate program
5. Submit and or update your master's final examination committee assignment (or update) online . Refer to Grad School main website.

Degree Clearance

Degrees are granted monthly. To qualify for graduation students must complete the *Application for Degree* on or before the first workday of the month and notify both the Graduate School and Division office of their intention to graduate in order to receive up-to-date information on graduation requirements. The

Application for Degree form is available in the Graduation Packet ordered online through the Graduate School Office (160 Williamson Hall, 231 Pillsbury Drive S.E., Minneapolis, MN 55455 or their website by requesting a graduation packet. Plan A Masters must file a Thesis Title page with the Graduate School. When filed, a Reviewers Report Form will be issued.

Final Oral Examination

All master's degree candidates are required to pass a final oral examination..

MS exam committees compose of **three faculty members.** The examining committee will consist of at least two representatives from the EH major (the research advisor and academic advisor or reader) and at least one faculty member from outside the EH major/EnHS Division or professional member of public health outside the university.

Students are expected to present a 20-30 minute professional seminar on their research project(s) as part of the final oral exam.

A closed meeting between the candidate and the examining committee immediately follows the seminar. This closed meeting may include further questions on the research project(s), as well as general areas of environmental health. Upon completion of the examination, the candidate is then excused and a formal vote of the committee is taken on whether the candidate passed the examination. In order to pass the examination, the candidate must receive no more than one negative vote.

After the successful completion of the exam, committee members will sign the *Final Exam Report* . The signed *Final Exam Report* is returned to the Graduate School

Career Follow-up Survey – necessary part for degree clearance –All Degrees

Students must complete the Career Survey prior to receiving their degree or certificate. Students complete the process online at the Career Survey link at: http://secure.ahc.umn.edu/PublicHealth/careersurvey/

All graduates will receive a three-month and six-month e-mail message asking them to update survey information (e.g., employment). This is through secure access and coordinators will not be able to input on students' behalf.

3. Appendix A: Annual Progress Review (Self-Assessment Report) Form for MS degrees

All EnHS MS Students: *Use this form to initiate an annual progress review meeting with your academic advisor.*

Annual Review End of Year Self-Assessment Report Form

Early in March schedule an appointment to meet with your advisor to discuss your accomplishments and goals for the following year. Complete this self-assessment form and return it [**as a Word doc attachment-]** to your advisor before your appointment by **April 11 or sooner.** In your appointment with your advisor review your self-assessment report form and ask for feedback. Your advisor will write a letter to summarize your meeting. A copy of the letter must be cc-ed MPH and MS/PhD directors (Matt Simcik and Betsy Wattenberg respectively) and the major coordinator. Your self-assessment report and advisor progress letter will become part of your file.. Include timeline and goals for following academic year
Fillable document follows

Student's Name:	Id #:
Advisor:	Degree sought:
Concentration rack:	Credits completed:
Entry term and year:	Term #:
Cum gpa:	Anticipated graduation term/yr:
MS Timeline and forms: http://www.grad.umn.edu/students/masters/index.html	**Field Experience :** http://www/sph.umn.edu/current/fe/

Answer questions below-use as many lines as needed and or attached additional pages if needed:

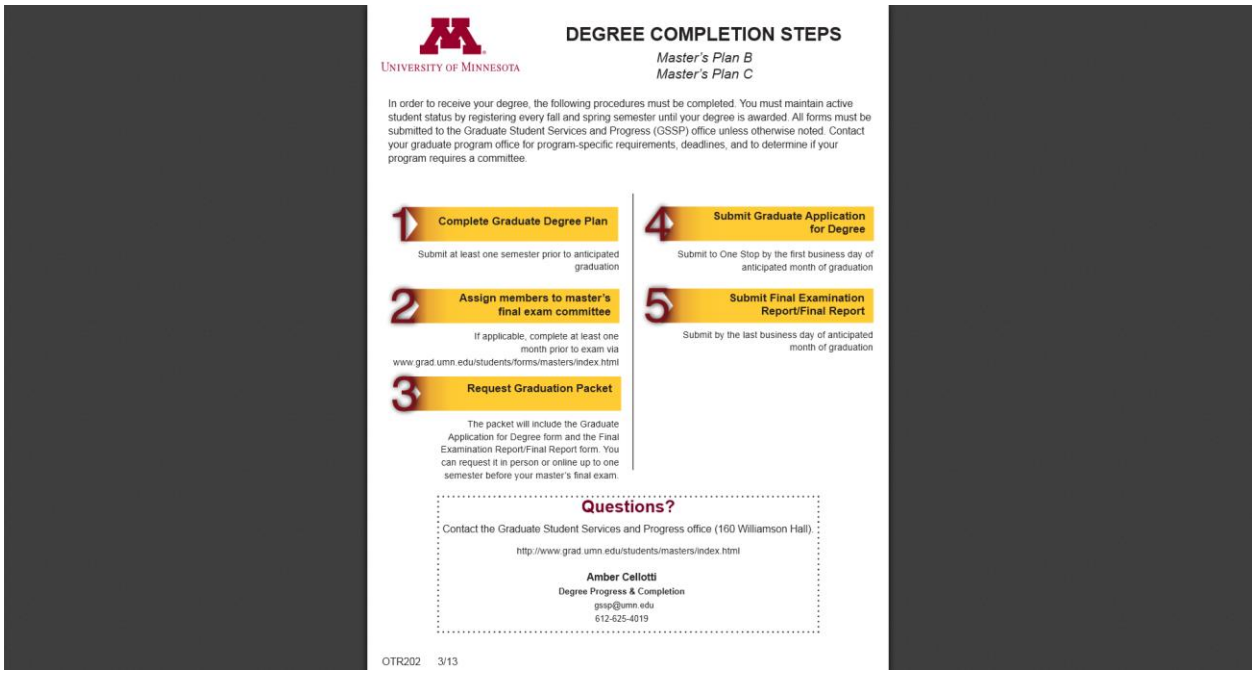
1. List below accomplishments this year:
2. List missed accomplishments this year:
3. Map timeline and goals for next year:
4. Degree program plan or study plan submitted? If not, when?
5.
6. For PhD students: When do you plan to begin and finish taking your thesis credits (PubH 8888).
7. **Comments to help your advisor give you feedback:**

Attach your finished Word.doc report and email it to your advisor, and DGS and program coordinator at nkosi001@umn.edu

Appendix B: Resources for MS Students

Petition form:

Degree Plan- See step 1 here under Master's Plan B or C: http://www.grad.umn.edu/sites/grad.umn.edu/files/MastersB.pdf



UNIVERSITY OF MINNESOTA

DEGREE COMPLETION STEPS

Master's Plan B
Master's Plan C

In order to receive your degree, the following procedures must be completed. You must maintain active student status by registering every fall and spring semester until your degree is awarded. All forms must be submitted to the Graduate Student Services and Progress (GSSP) office unless otherwise noted. Contact your graduate program office for program-specific requirements, deadlines, and to determine if your program requires a committee.

1. **Complete Graduate Degree Plan**
   Submit at least one semester prior to anticipated graduation
2. **Assign members to master's final exam committee**
   If applicable, complete at least one month prior to exam via www.grad.umn.edu/students/forms/masters/index.html
3. **Request Graduation Packet**
   The packet will include the Graduate Application for Degree form and the Final Examination Report/Final Report form. You can request it in person or online up to one semester before your master's final exam.
4. **Submit Graduate Application for Degree**
   Submit to One Stop by the first business day of anticipated month of graduation
5. **Submit Final Examination Report/Final Report**
   Submit by the last business day of anticipated month of graduation

Questions?

Contact the Graduate Student Services and Progress office (160 Williamson Hall).

http://www.grad.umn.edu/students/masters/index.html

Amber Cellotti
Degree Progress & Completion
gssp@umn.edu
612-625-4019

OTR202 3/13

Appendix B: Environmental Health MS Competency Statement

The MS degree focuses on the science of environmental health, and emphasizes training in the biological mechanisms, assessment, management, and communication of environmental health hazards with a focus on preventing the occurrence or spread of disease. In addition to obtaining a broad background through core courses, EnHS students select a focus area based on their academic goals. EnHS graduate educational programs are organized into three core areas that reflect the trans- and multi-disciplinary scientific fields of environmental health as an essential component of the wider field of public health: Environmental Exposure Science (chemistry, infectious disease, industrial hygiene, injury prevention); Environmental Health Effects (toxicology, epidemiology); and Environmental Health Policy (risk assessment, management, communication, policy formation). MS students are expected to develop research skills in their respective focus area. Upon graduation, a student with an MS should be able to interpret published data, conduct environmental health research, and identify the interplay between biological, chemical, physical and behavioral environmental factors on human health and ecological balances. Course grid available as a separate attachment upon request.

Appendix C: Career Services Resources

HTTP://WWW.SPH.UMN.EDU/CAREERS/

It is the mission of Career Services at the University of Minnesota, School of Public Health, to foster the career development of our students and alumni by providing them with the tools and resources necessary to successfully manage their careers, beginning when they first enroll in the SPH and continuing as they become established public health professionals.

Serving -STUDENTS & ALUMNI:

- Improve resume and cover letter writing skills.
- Hone interviewing and negotiating strategies.
- Seek graduate assistantships or internships, while enrolled in the SPH.
- Explore career possibilities.
- Begin or carry on their job search.
- Explore salary statistics for public health program areas.

Offers- JOB SEARCH RESOURCES:

- Job Postings, specifically for public health students.
- GoldPASS, the University-wide job postings system.
- Links to other internship and job search websites

Assists with- CAREER DEVELOPMENT RESOURCES:

- Online Career-Related PowerPoint Workshops
- U of MN Libraries - Careers & Jobs Development Resources
- InterviewStream for students to practice their interviewing skills.
- A month-by-month Career Calendar
- Tip Sheets to help you with your job search.
- A well-established Mentor Program

Appendix D

MS Graduation CHECKLIST-

You **must** complete the following steps or your degree clearance may be delayed by one month or more.

☐	Register every fall and spring semesters to be considered active in the program
☐	Follow ALL Steps sequentially to avoid delays in paperwork being processed: http://www.grad.umn.edu/current-students/gssp
☐	Apply for degree online in the University Portal https://www.myu.umn.edu **At least** one month before expected month of graduation.
☐	Check your transcript to make sure your courses have grades. A grade of "K" is not a final grade so if you see this grade you should contact your instructor to request a final grade (S/N)
☐	Complete the *Graduate Follow-Up Survey* at https://idp2.shib.umn.edu/idp/umn/login ----
☐	Provide your Major Coordinator with an electronic copy of your final project by e-mail. This paper is due by noon on the last business day of the month you plan to graduate.

Reminders

- ☐ Attend Grad Fair where you can order your Cap and Gown and meet with Financial Aid – March XX, Coffman Union (unless you have walked already.)
- ☐ Register for Commencement - see SPH website (unless you have walked already).
- ☐ Clean out locker
- ☐ Consider taking the Public Health Certification Exam
- ☐ Update your contact info. so we can keep in touch
- ☐ Make an appointment with Career Services for a final review of your resume, interview practice or other job search guidance, Call 612-626-3500.
- ☐ Join the SPH Alumni Society
- ☐ Lifetime University e-mail. Keep and use your U of MN email address. You can use your U of M e-mail address for personal or professional purposes even after you graduate. Imagine never having to subscribe to an e-mail
  Service includes full access to three features:

  University Portal https://www.myu.umn.edu